"The Consensus Process in Development of Codes"
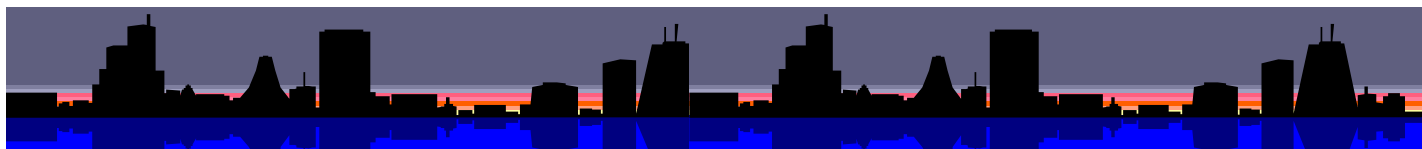
NIST Standards in Trade Workshop for China on Fire Protection for the Built Environment

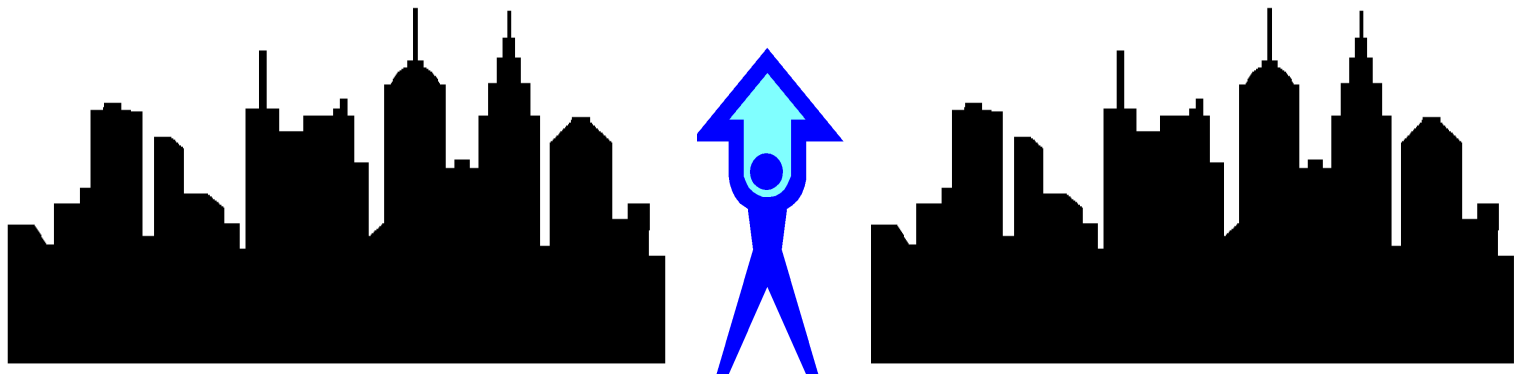20 – 24 September 2004

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The Consensus Process in the Development of Codes

- 1) Basics of Codes & Standards Development
- 2) How the U.S. is Different
- 3) The ANSI Platform
- 4) U.S. Federal Government Role
- 5) International Codes & Standards Processes

1) Basics of Codes & Standards Development

- **Difference between Codes & Standards**
  - Standards:
    - Address specific technical issues.
    - Tend to be more common, and have fewer pages.
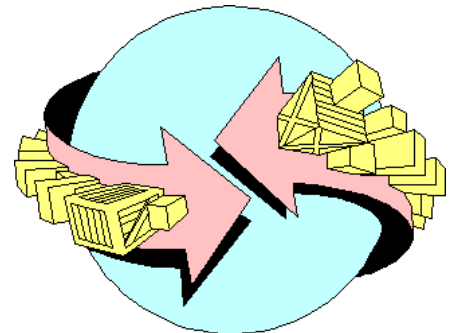 - Codes:
    - Have significant impact on society.
    - Address broad topics, & reference standards on details.
    - Are less common, and are very comprehensive.
  - Note: ANSI procedures refer generally to all standardizing documents as "standards"

1) Basics of Codes & Standards Development

- **Product oriented documents**
  - Focus on marketplace coordination
    - Example: standard on bolt threads
- **Safety oriented documents**
  - Focus on establishing minimum acceptable levels, for topics such as public safety, health, and protection of the environment.
    - Example: building code
- **Combination documents**
  - addressing products and safety
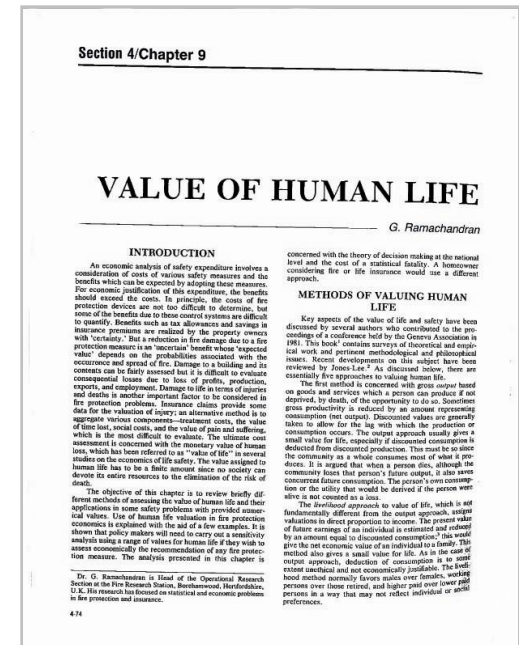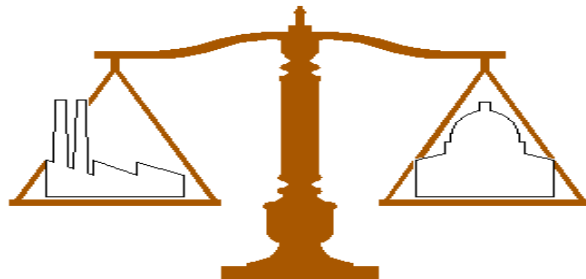   - Example: fire test standards

1) Basics of Codes & Standards Development

"Safety": What is it?

- Mentioned in important treaties and procedures
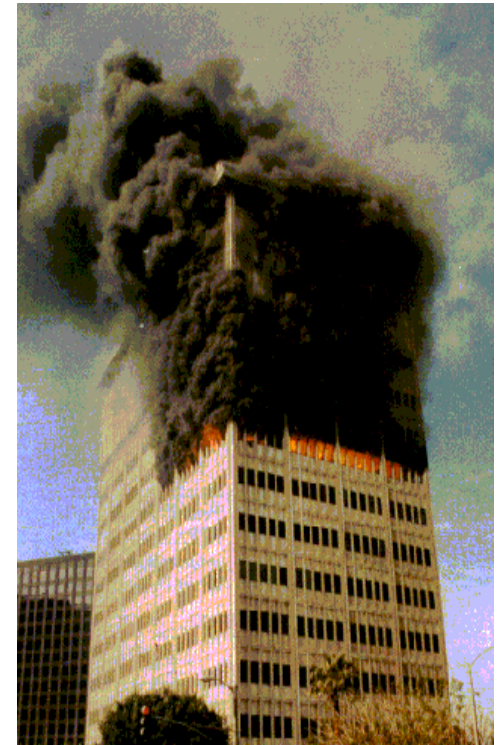- Not clearly defined

- Risk concepts measuring the "Value of Human Life"
(Example: SFPE Handbook, 1st ed.)

Section 4/Chapter 9

VALUE OF HUMAN LIFE

G. Ramachandran

1) Basics of Codes & Standards Development

Concepts of "Safety"

- Balance of society's:
    - Tolerance to risk
    - Willingness to commit resources
- Example: Sprinkler systems in hi-rise buildings
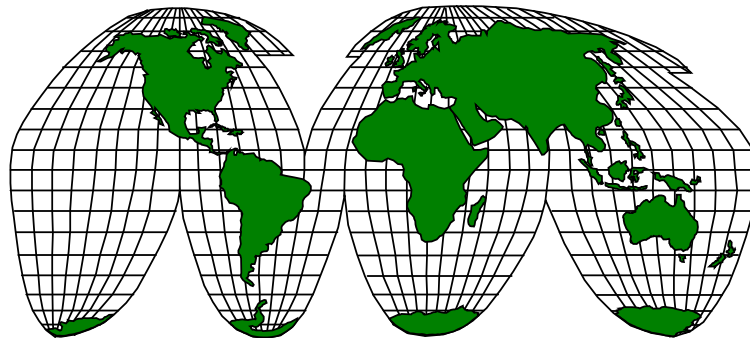
2) How the U.S. is Different

- Self-regulated system; comprised of private independent developers.
  - Approximately 200 organizations accredit ~10,000 documents through ANSI.
    - Market regulated model documents.
    - Less than 10% of organizations generate 75% of all documents.
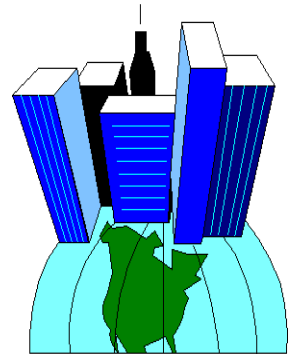
2) How the U.S. is Different

- Decentralized government oversight
- U.S. System is generally blind to geographic boundaries.
  - Anyone from any country can participate.
  - Based on principle of "Openness".

3) The ANSI Platform

- Private, non-profit organization, since 1918.
- Administers and coordinates the U.S. voluntary standardization and conformity assessment systems.
- Gateway for certain International activities
  - ISO
  - IEC (via the U.S. National Committee).
  - PASC (Pacific Area Standards Congress)
  - COPANT (Pan American Standards Comm.)

3) The ANSI Platform

- Assists with establishing levels of safety & health, and protection of the environment.
- Improves efficiency of marketplace.
- Helps provide legal safeguards.
  - Antitrust ,Product Liability, Negligence, & so on…
- Provides forum for government coordination.
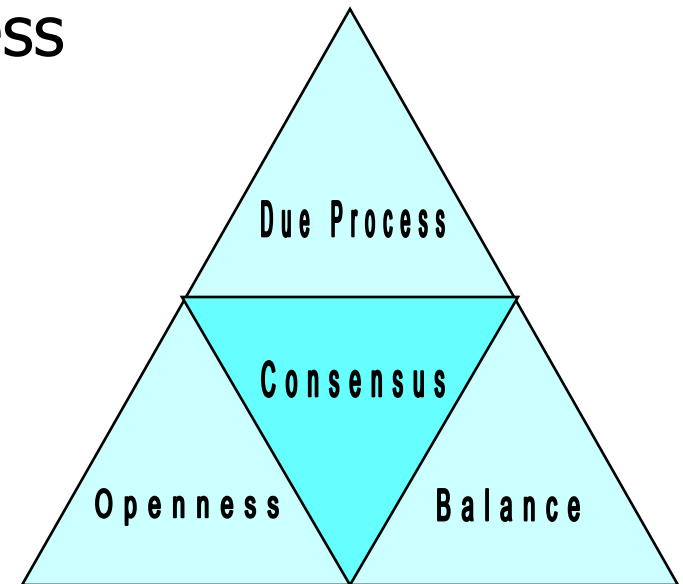 - Federal Government Acceptability
  - Local Jurisdiction Recognition

3) The ANSI Platform

ANSI Cardinal Principles for Designation as an American National Standard (ANS)

- Hallmarks of the ANS Process
  - Openness, due process, consensus by a balance of materially-affected interests, consideration of views and objections
  - Transparency of the process
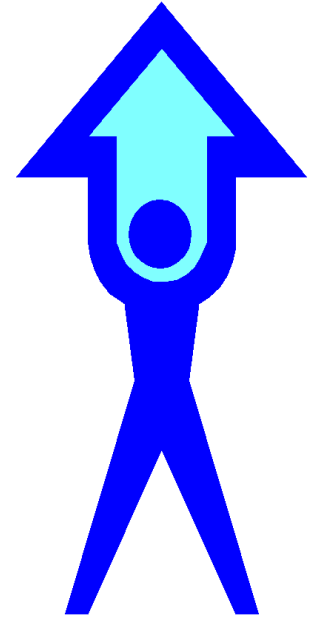 - Fundamental fairness - Ensures level playing field

4) U.S. Federal Government Role

- General recognition of overall system
    - OMB Circular A-119; and National Technology Transfer & Advancement Act of 1995 (Public Law 104-113).
    - Encourages participation and document use.
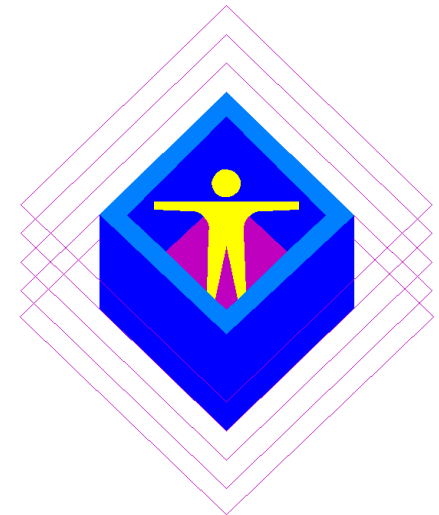   - Acknowledges efforts of private developers.

4) U.S. Federal Government Role

- U.S. Federal Government defers to States and other local jurisdictions on certain topics
  - Typical of broad impact codes like those on building, mechanical, electrical, & plumbing.
  - Often addressed on state-by-state basis, using model documents with amendments.
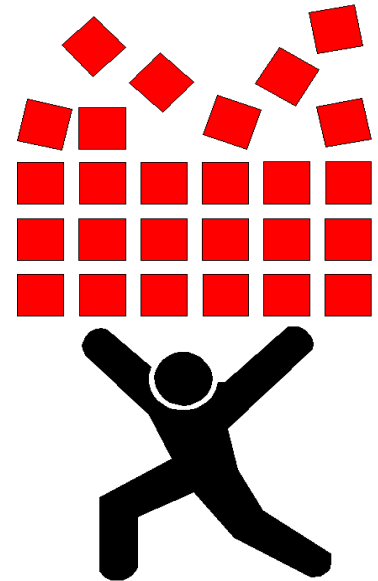
5) International Codes & Standards Processes

- How do we identify an International Standards Developer (ISDO)?

- One measure: WTO and the Technical Barrier to Trade (TBT) Agreement.
    - Annex 4 of TBT Report (2000)
        - Transparency, Openness,
        - Impartiality & Consensus,
        - Effectiveness & Relevance
        - Coherence
        - Address developing countries

5) International Codes & Standards Processes

- Multiple approaches exist:
    - One-Country/One-Vote
        - ISO, IEC, ITU
    - Full Consensus
        - Typical Of North American Developers

5) International Codes & Standards Processes

- ## One-Country/One-Vote systems
  - Have strong global recognition.
  - Attractive to smaller countries.

    (because they're treated equal to large countries)

- ## Full Consensus systems
  - Recognition is more regional.
  - Allows greater flexibility.
  - More directly representative.

5) International Codes & Standards Processes

- Codes are traditionally better suited for the Full Consensus approach
  - Broad impact on society
  - Local amendments are typical
    - Must account for input beyond only technical (i.e., social, economic, political, legal, & so on)

5) International Codes & Standards Processes

- Regional nature of ISDOs:
  - One-Country/One-Vote Systems
    - ISO and IEC are typically considered ISDOs while gaining recognition as European regional SDOs.
  - Full Consensus Systems
    - U.S. developers are typically considered North American regional SDOs, while gaining recognition as ISDOs.

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